

REMARKS

The present application was filed on July 27, 1999 with claims 1-20. In the outstanding Office Action dated September 13, 2002, the Examiner: (i) rejected claims 1, 3-12 and 14-20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,118,936 to Lauer (hereinafter "Lauer") in view of Applicants' specification at page 2, lines 18, 19, 26 and 27 (hereinafter "alleged APA"); and (ii) rejected claims 2 and 13 under 35 U.S.C. §103(a) as being unpatentable over Lauer in view of APA, and further in view of David A. Rabenhorst, "Interactive Exploration of Multidimensional Data," Proceedings of the SPIE Symposium on Electronic Imaging, February 1994 (hereinafter "Rabenhorst").

In this response, Applicants: (i) amend independent claims 1, 9, 12 and 20; and (ii) traverse the §103(a) rejections to claims 1-20. Applicants respectfully request reconsideration of the present application in view of the following remarks.

Regarding independent claims 1, 9, 12 and 20, Applicants respectfully assert that the combination of Lauer and the alleged APA fails to establish a prima facie case of obviousness under 35 U.S.C. §103(a), as specified in M.P.E.P. §2143.

As set forth therein, M.P.E.P. §2143 states that three requirements must be met to establish a prima facie case of obviousness. First, there must be some suggestion or motivation to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited combination must teach or suggest all the claim limitations. While it is sufficient to show that a prima facie case of obviousness has not been established by showing that one of the requirements has not been met, Applicants respectfully believe that none of the requirements have been met.

The present invention, for example as recited in amended independent claim 1, defines a processor-based method for use in analyzing non-fully structured data which is associated with one or more events, comprising the following steps. At least a portion of the non-fully structured data is parsed according to one or more parsing rules to convert the at least a portion of non-fully structured data to structured data. Presentation operations are provided which are respectively able to provide a presentation of at least a portion of the non-fully structured data, format at least a portion of the structured data to provide a presentation of a graphical representation of the at least a portion of structured data, and format at least a portion of the structured data to provide a

presentation of a summary representation of the at least a portion of structured data. Data associated with two or more of the presentations is coordinated, when desired, to enable a coordinated analysis of the data. Independent claim 9 defines a system-based invention having similar limitations, while independent claim 12 and independent claim 20 respectively define an apparatus-based invention and an article of manufacture-based invention having similar limitations.

Applicants amended independent claims 1, 9, 12 and 20 in an effort to further clarify the subject matter of the claimed invention. Support for the amendments may be found throughout the specification, for example, see page 6, line 3, through page 7, line 2.

Lauer is directed to a signaling network management system for converting network events into standard form and then correlating the standard form events with topology and maintenance information. The alleged APA on page 2 of Applicants' specification refers to mutually exclusive data viewing approaches, i.e., viewing raw data, viewing summary information, and viewing graphical displays.

First, Applicants assert that no motivation or suggestion exists to combine Lauer and the alleged APA. For at least this reason, a prima facie case of obviousness has not been established. Motivation to combine cannot come from the Applicants' own specification. This is impermissible hindsight. In fact, Applicants' specification points out the very deficiencies from which an approach such as that taught by Lauer suffers.

Applicants specification at page 2, line 18, through page 4, line 7 (the source of the alleged APA) describes three different, but mutually exclusive, ways to analyze event logs, i.e, viewing raw data, viewing summary information, and viewing graphical displays. As pointed out, each of them has its own advantages. Directly reading the textual messages provides the most detailed information of event messages. The aggregated event analysis provides a nice scaling property and shows summarization. The event plot can reveal event patterns and relationship among events. Most available products for analyzing a log file specialize on one type of log file. Unfortunately, all of these special log analyzers only support summarization analysis. None of them can be used to visualize event messages and/or see original messages. On the other hand, there are many general graphical tools. These tools aim to support either graphical analysis of numerical data or aggregated level summarization. However, none of them provide both types of analysis. In addition, these tools

usually only take structured data as inputs and can not handle textual data directly.

Therefore, as the specification explains, it would be highly desirable to provide systems and methods which integrate different analysis approaches, thus providing a user with the capability and flexibility to perform multiple types of analysis on raw data for event management purposes. This is what the claimed invention is directed toward.

Despite the Examiner's contention, there is nothing in Lauer that would suggest motivation to yield the integrated presentation and analysis approach of the claimed invention. Further, since the approaches described in the specification are generally mutually exclusive, there is no known motivation to combine any of them into a single presentation and analysis technique, as in the claimed invention.

Second, Applicants assert that there is no reasonable expectation of success in achieving the present invention through a combination of Lauer and the alleged APA. For at least this reason, a prima facie case of obviousness has not been established. As mentioned above, despite the assertion in the outstanding final Office Action, Applicant does not believe that Lauer and the alleged APA are combinable since it is not clear how one would combine them given that the various approaches are mutually exclusive. There are no teachings in the cited combination as to how to coordinate data associated with two or more of the presentations, when desired, to enable a coordinated analysis of the data, as in the claimed invention.

Lastly, Applicants assert that the combination of Lauer and the alleged APA fails to teach or suggest all of the claim limitations of independent claims 1, 9, 12 and 20. For at least this reason, a prima facie case of obviousness has not been established. Again, assuming arguendo that Lauer and the alleged APA could be properly combined, which for at least the reasons above it is believed that they can not be properly combined, the combination fails to teach or suggest all claim elements in independent claims 1, 9, 12 and 20.

By way of example, the inventions of claims 1, 9, 12 and 20 recite "coordinating data associated with two or more of the presentations, when desired, to enable a coordinated analysis of the data." This is explained, for example, at page 6 of the specification where it states that the invention not only preferably provides multiple viewers, but also combines and coordinates these viewers for analyzing events. For example, a user can very easily select a set of interesting events

for a set of hosts and event types from the attribute viewer (e.g., summary viewing) by highlighting these hosts and event types, then use the plot viewer (e.g., graphical viewing) to see the relationship among the selected events. From the plot viewer, he can further select a small set of suspicious events by dragging a rubber-band, and displaying the original textual messages related to the selected events in the message viewer (e.g., raw data viewing). Further, by highlighting, coloring, or otherwise selecting events in one viewer, he can cause to have similarly modified presentations of these events in other viewers.

Assuming arguendo that it is proper to combine Lauer and the alleged APA to yield a group of presentation techniques, the cited combination is silent as to “coordinating data associated with two or more of the presentations, when desired, to enable a coordinated analysis of the data.”

Also, Applicants point out that the portion of Lauer cited in the Office Action in rejecting the “providing presentation operations” claim language has nothing to do with presentation operations. The Office Action cites element 714 of FIG. 7a of Lauer as having something to do with presentation operations, however, such an element is related to some memory loading operation, see column 12, lines 1-3 of Lauer.

Rabenhorst fails to remedy the above deficiencies since it is directed toward a graphical visualization approach. FIG. 3 of Rabenhorst, cited by the Examiner, is a graphical visualization known as a scatter plot. Even in a proper combination with Lauer and the alleged APA, all of the elements of the claimed invention are still not taught or suggested.

For at least the above reasons, Applicants respectfully request withdrawal of the §103 rejections of independent claims 1, 9, 12 and 20.

The remainder of the claims rejected over the Lauer-alleged APA combination depend, either directly or indirectly, from claims 1, 9 or 12, which are believed patentable for the reasons set forth above. Furthermore, the remaining claims define additional patentable subject matter in their own right. By way of example only, claims 3 and 14 recite the step/operation of modifying one or more parsing rules to affect the parsing operation. The portion of Lauer cited to support this rejection (i.e., column 14, lines 50-52) deals with modifying a presentation, not modifying parsing rules.

For at least the above reasons, Applicants respectfully request withdrawal of the §103 rejections of dependent claims 3-8, 10, 11 and 14-19.

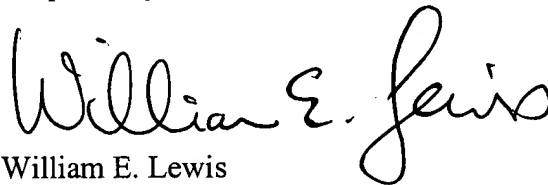
Regarding the rejection of claims 2 and 13 under 103(a) based on Lauer, the alleged APA and Rabenhorst, Applicants respectfully reiterate the arguments presented above regarding the impropriety of the Lauer-alleged APA combination, and respectfully assert that such arguments apply with equal force to the Lauer-alleged APA-Rabenhorst combination used in rejecting the indicated claims. Accordingly, Applicants respectfully assert that the indicated claims are patentable by virtue of their dependency from claims 1 and 12, and because they define additional patentable subject matter in their own right.

For at least the above reasons, Applicants respectfully request withdrawal of the §103 rejections of dependent claims 2 and 13.

Accordingly, for at least the foregoing reasons, claims 1-20 are believed to be patentable over the cited references. As such, the application is asserted to be in condition for allowance, and favorable action is respectfully solicited.

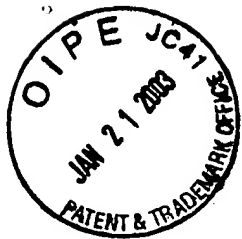
Attached hereto is a marked-up version of the changes made to the specification and claims by the present Amendment.

Respectfully submitted,

A handwritten signature in black ink that reads "William E. Lewis". The signature is written in a cursive, flowing style.

Date: January 13, 2003

William E. Lewis
Attorney for Applicant(s)
Reg. No. 39,274
Ryan, Mason & Lewis, LLP
90 Forest Avenue
Locust Valley, NY 11560
(516) 759-2946



VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The paragraph beginning at page 19, line 13, has been amended as follows:

Although illustrative embodiments of the present invention have been described herein with reference to the accompanying drawings, it is to be understood that the invention is not limited to those precise embodiments, and that various other changes and modifications may be [affected therein] made by one skilled in the art without departing from the scope or spirit of the invention.

IN THE CLAIMS

Claims 1, 9, 12 and 20 have been amended as follows:

1. (Amended) A processor-based method for use in analyzing non-fully structured data which is associated with one or more events, the method comprising the steps of:

parsing at least a portion of the non-fully structured data according to one or more parsing rules to convert the at least a portion of non-fully structured data to structured data; [and]

providing presentation operations which [include presenting] are respectively able to provide a presentation of at least a portion of the non-fully structured data, [and at least one of: (i)] format[ting] at least a portion of the structured data to provide a presentation of a graphical representation of the at least a portion of structured data, and [(ii)] format[ting] at least a portion of the structured data to provide a presentation of a summary representation of the at least a portion of structured data; and

coordinating data associated with two or more of the presentations, when desired, to enable a coordinated analysis of the data.

9. (Amended) A system for use in analyzing non-fully structured data which is associated with one or more events, the system comprising:

a parsing engine which parses at least a portion of the non-fully structured data according to one or more parsing rules to convert the at least a portion of non-fully structured data to structured data;

viewers which are respectively able to provide a presentation of [present] at least a portion

of the non-fully structured data, [and perform at least one of: (i)] format[ting] at least a portion of the structured data to provide a presentation of a graphical representation of the at least a portion of structured data, and [(ii)] format[ting] at least a portion of the structured data to provide a presentation of a summary representation of the at least a portion of structured data, wherein data associated with two or more of the presentations is coordinated, when desired, to enable a coordinated analysis of the data; and

a selection and control engine coupled to the parsing engine and the viewers which controls operations associated with the parsing engine and the viewers.

12. (Amended) Apparatus for use in analyzing non-fully structured data which is associated with one or more events, the apparatus comprising:

at least one processor operable to: (i) parse at least a portion of the non-fully structured data according to one or more parsing rules to convert the at least a portion of non-fully structured data to structured data[, and operable to]; (ii) provide presentation operations which [include presenting] are respectively able to provide a presentation of at least a portion of the non-fully structured data, [and at least one of: (i)] format[ting] at least a portion of the structured data to provide a presentation of a graphical representation of the at least a portion of structured data, and [(ii)] format[ting] at least a portion of the structured data to provide a presentation of a summary representation of the at least a portion of structured data; and (iii) coordinate data associated with two or more of the presentations, when desired, to enable a coordinated analysis of the data; and

memory coupled to the at least one processor for storing at least one of the non-fully structured data, the structured data and the one or more parsing rules.

20. (Amended) An article of manufacture for use in analyzing non-fully structured data which is associated with one or more events, comprising a machine readable medium containing one or more programs which when executed implement the steps of:

parsing at least a portion of the non-fully structured data according to one or more parsing rules to convert the at least a portion of non-fully structured data to structured data; [and]

providing presentation operations which [include presenting] are respectively able to provide

a presentation of at least a portion of the non-fully structured data, [and at least one of: (i)] format[ting] at least a portion of the structured data to provide a presentation of a graphical representation of the at least a portion of structured data, and [(ii)] format[ting] at least a portion of the structured data to provide a presentation of a summary representation of the at least a portion of structured data; and

coordinating data associated with two or more of the presentations, when desired, to enable a coordinated analysis of the data.